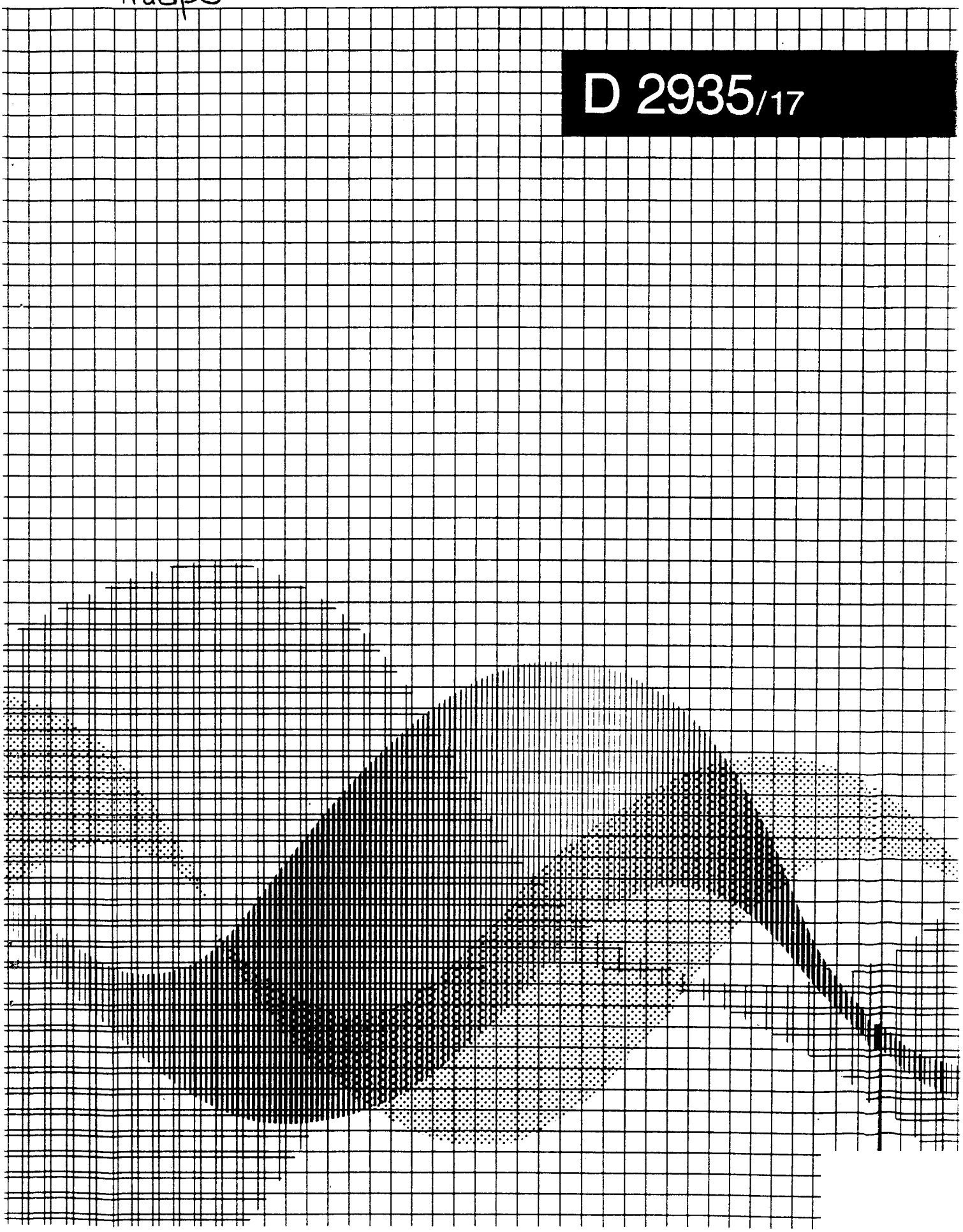
MAGNAVOX

Philips

D 2935/17



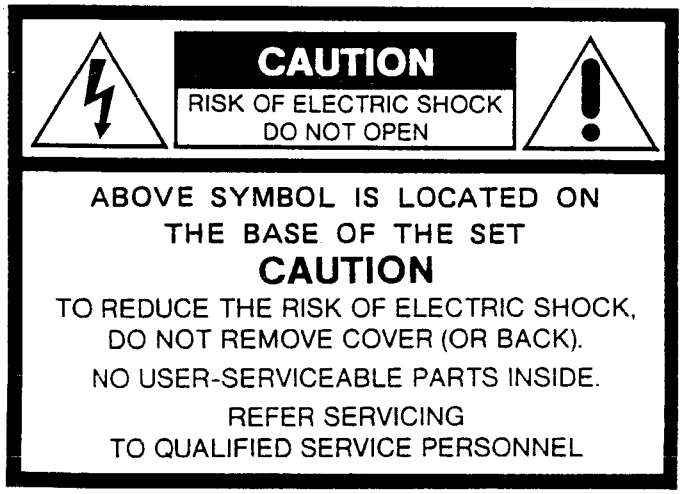
WARNING

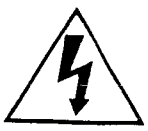
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

The Model and Serial Number of your Magnavox appliance will be found on the type plate in the battery compartment.
Please record the Model and Serial Number in the space provided below.

MODEL NUMBER: D 2935/17

SERIAL NUMBER:





This symbol is intended to alert the user of the presence of uninsulated 'dangerous voltage' within the product's enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Operating Instructions

INTRODUCTION

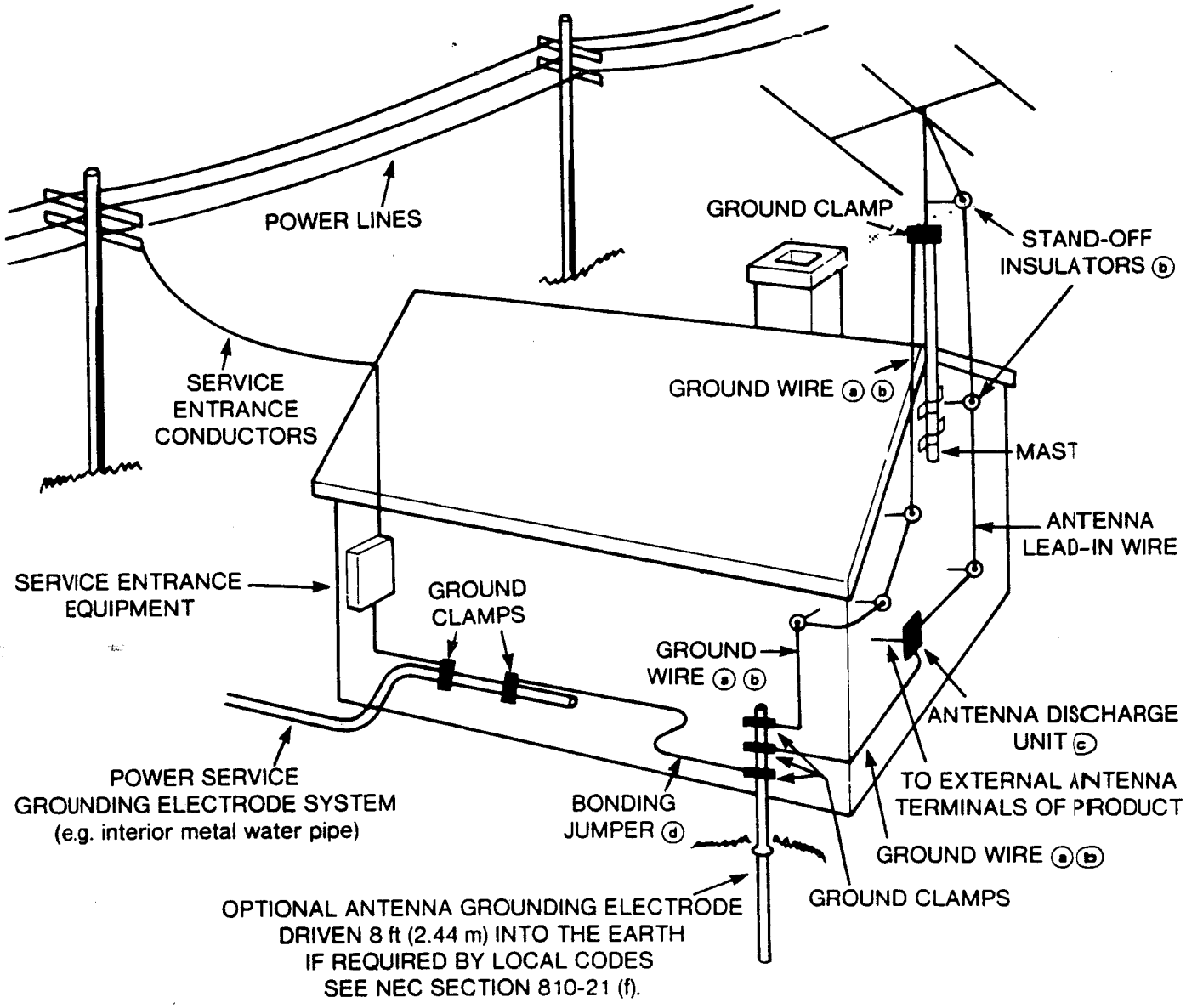
This booklet gives as much information as possible on the actual OPERATION of this world receiver. Specific details, related with the 'world' of SW reception, are discussed in the separate booklet 'WORLD RECEIVER'.
For more detailed information we refer to the 'World Radio TV Handbook', an annual publication of Billboard A.G. (Editorial address: Billboard Publications Inc., 1515 Broadway, New York, NY 10036), available in USA from:
– Watson-Guptill Publications, 1515 Broadway, New York, NY 10036; or
– Gilfer Associates, P.O. Box 239, Park Ridge, New Jersey 07656.
Most countries have a special SW Broadcasting Company. For USA you can apply to 'The Voice of America', United States Information Agency, Washington, DC 20547 for further information.

CONTROLS AND JACKS - Figs. 1, 2 and 3

① power on/off switch
② on/off switch for illumination of display ④
③ telescopic antenna
④ LCD display
⑤ LED tuning indicator (not on FM)
⑥ selector for telescopic or ferroceptor antenna (AM and LW)
⑦ distance/local selector for local transmitters
⑧ BFO switch for single-sideband reception
⑨ BFO control
⑩ frequency touch panel
⑪ high-frequency gain control
⑫ tone control
⑬ volume control
⑭ tuning knob
⑮ preset touch panel
⑯ touch panel for band selection
⑰ carrying strap fixation
⑱ line output jack
⑲ headphone jack
⑳ jack for 12 V car battery supply
㉑ jack for AC power supply
㉒ voltage selector
㉓ jack for external AM antenna
㉔ jack for external FM antenna
㉕ jack for ground cord
㉖ battery compartment for the memory batteries
㉗ battery compartment for the radio batteries
㉘ stand

FIG. A

EXAMPLE OF ANTENNA GROUNDING ACCORDING TO THE NATIONAL ELECTRIC CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 - "RADIO AND TELEVISION EQUIPMENT"


POWER LINES
GROUND CLAMP
STAND-OFF INSULATORS ⓑ
SERVICE ENTRANCE CONDUCTORS
GROUND WIRE ⓐ ⓑ
MAST
ANTENNA LEAD-IN WIRE
SERVICE ENTRANCE EQUIPMENT
GROUND CLAMPS
GROUND WIRE ⓐ ⓑ
ANTENNA DISCHARGE UNIT ⓒ
TO EXTERNAL ANTENNA TERMINALS OF PRODUCT
POWER SERVICE GROUNDING ELECTRODE SYSTEM (e.g. interior metal water pipe)
BONDING JUMPER ⓓ
GROUND WIRE ⓐ ⓑ
GROUND CLAMPS
OPTIONAL ANTENNA GROUNDING ELECTRODE DRIVEN 8 ft (2.44 m) INTO THE EARTH IF REQUIRED BY LOCAL CODES SEE NEC SECTION 810-21 (f).

ⓐ Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as a ground wire.

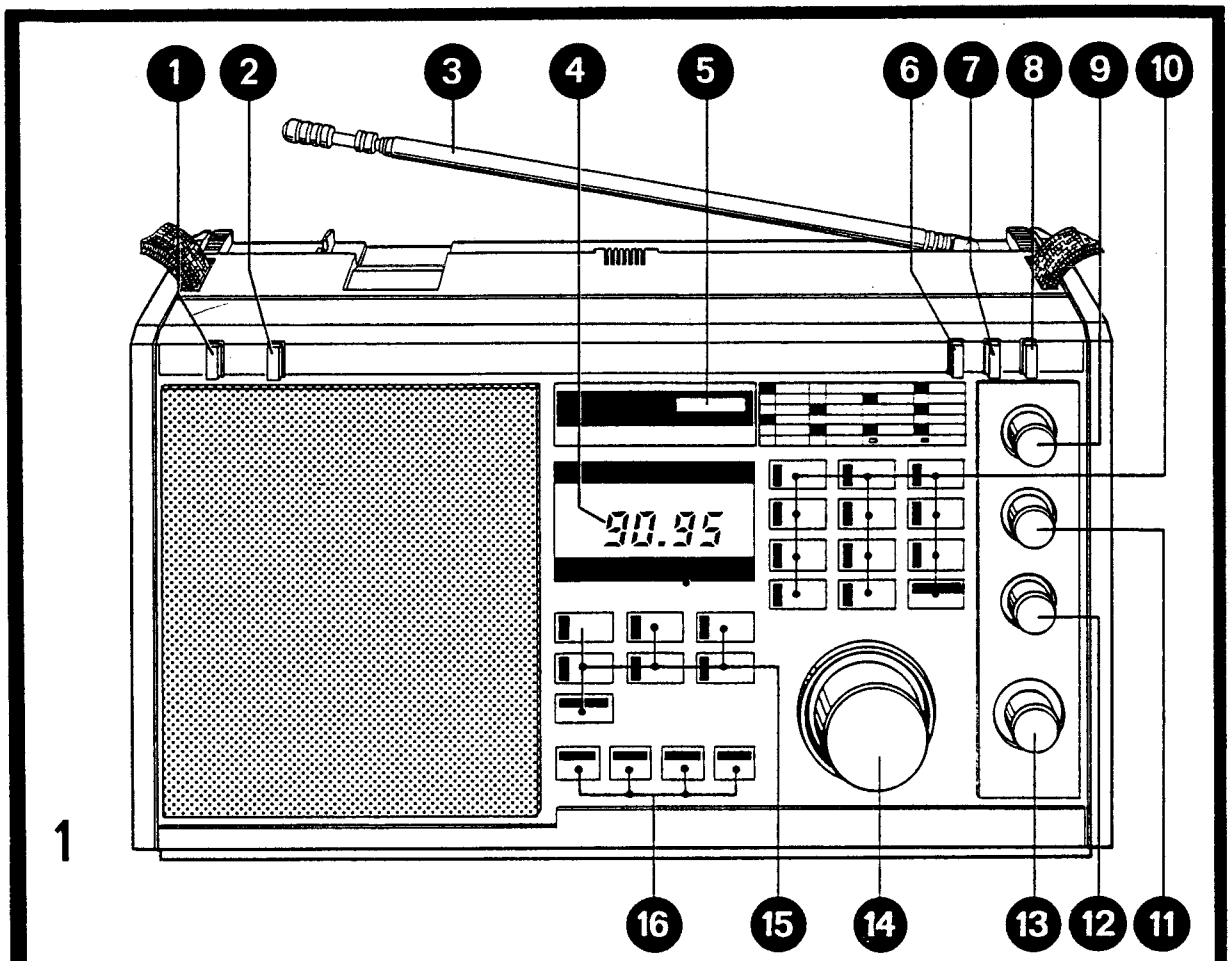
ⓑ Secure the antenna lead-in and ground wires to the house with stand-off insulators spaced from 4-6 feet (1.22-1.83 m) apart.

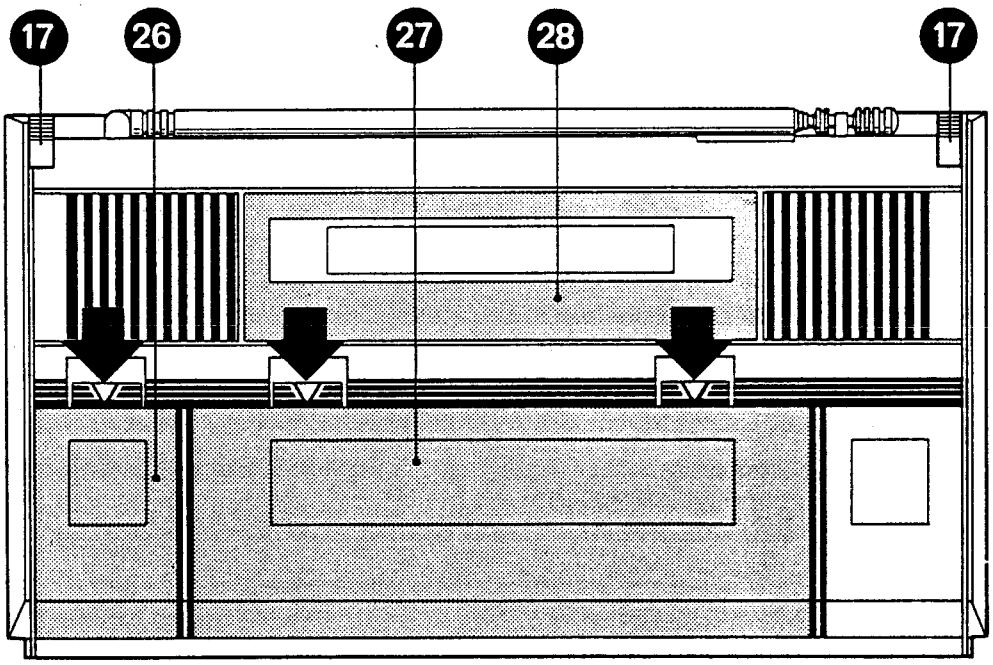
ⓒ Mount the antenna discharge unit as close as possible to where the lead-in wire enters the house.

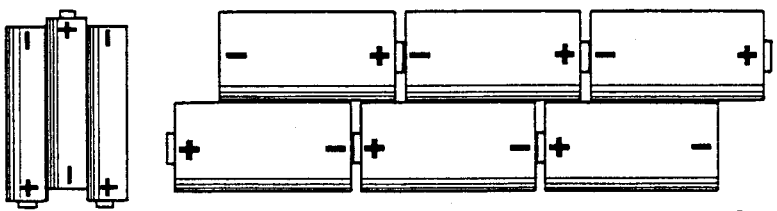
ⓓ Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21 (J).

NOTE TO THE CATV SYSTEM INSTALLER:

This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

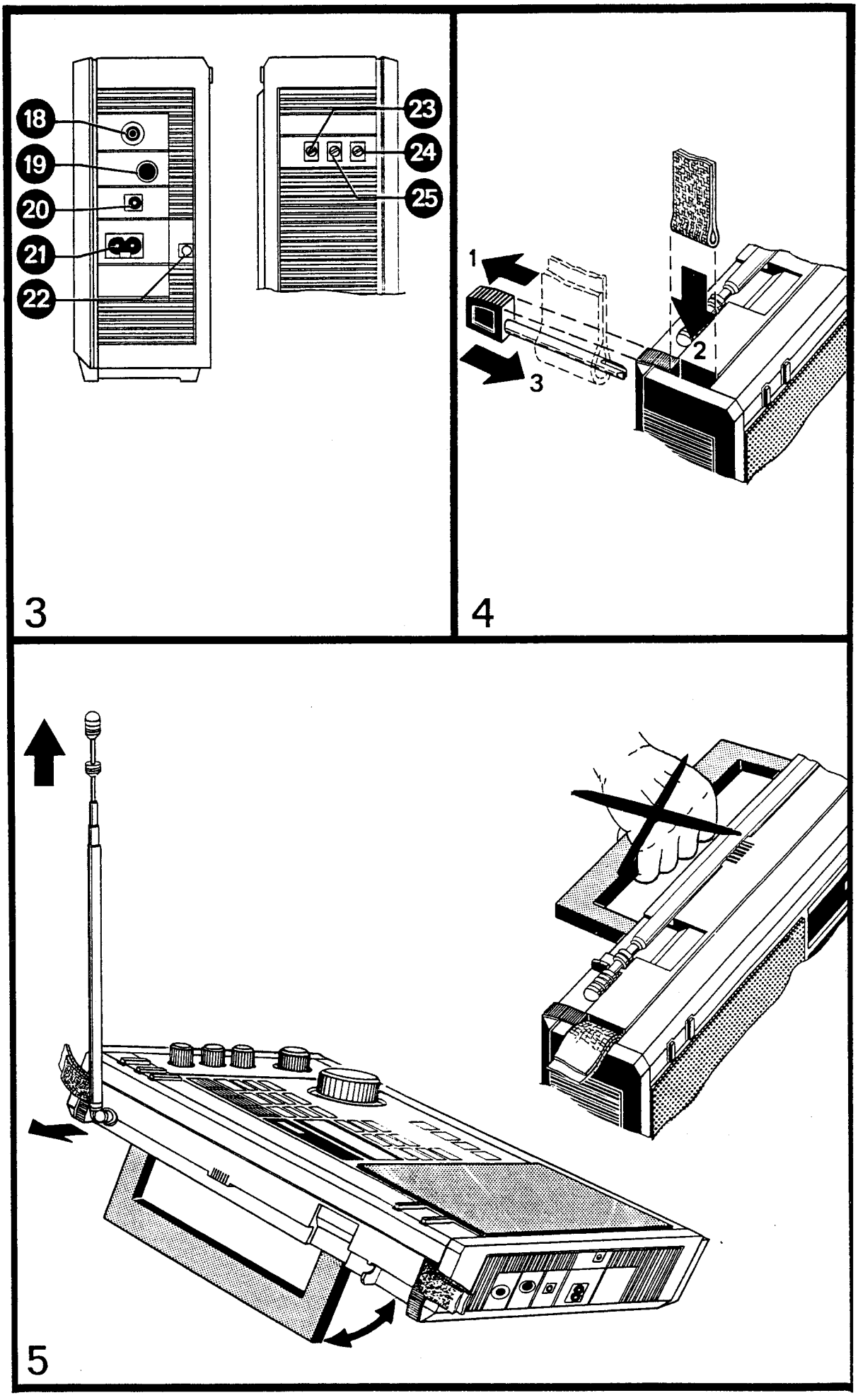






R6
3x AA
UM-3

R20
6x D
UM-1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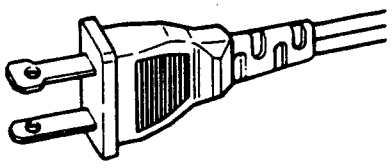
SAFETY INSTRUCTIONS
Read before operating equipment

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. Read Instructions - All the safety and operating instructions should be read before the appliance is operated.
2. Retain Instructions - The safety and operating instructions should be retained for future reference.
3. Heed Warnings - All warnings on the appliance and in the operating instructions should be adhered to.
4. Follow Instructions - All operating and use instructions should be followed.
5. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
6. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
7. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.



AC POLARIZED PLUG

12. Power-Cord Protection - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
13. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
14. Power Lines - An outdoor antenna should be located away from power lines.
15. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.
    Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Fig. A.
16. Nonuse Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
17. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
18. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:
    A. The power-supply cord or the plug has been damaged; or
    B. Objects have fallen, or liquid has spilled into the appliance; or
    C. The appliance has been exposed to rain; or
    D. The appliance does not appear to operate normally or exhibits a marked change in performance; or
    E. The appliance has been dropped, or the enclosure damaged.
19. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

SUPPLY

Batteries

Six D-cells are required for the radio section and three AA-cells for the supply of the memory.

Insertion of the batteries

- Remove the lids of battery compartments ㉖ and ㉗.
- ***First*** insert the three AA-cells for the supply of the MEMORY and ***after that*** the six D-cells for the radio as indicated in Fig. 2.
- Refit the lids.

Note: Remove the radio batteries when they are exhausted or when the radio will not be battery-operated for a long time.
Replace the memory batteries once a year. If this is done while the radio is switched on, the contents of the memory will be preserved.

12 V Car battery supply

- To operate this unit from your 12 V car battery connected to jack ⑳, you can order an optional adaptor cord by writing directly to the manufacturer:

  A.G. Busch & Co., Inc.
  6060 N.W. Highway
  Chicago, ILL. 60631

When ordering, specify model No. 80-F1 for 12 V DC operation (includes a 1 Amp fuse).

- The set is protected against a wrong polarity connection, however, ask your dealer or garage to make a proper connection to your 12 V car battery (9-14 V DC, '−' pole to the center pin).
- Insert the plug of the supply cord into jack ⑳; now the 12 V supply is switched on.

AC power supply

The receiver is equipped with a voltage selector ㉒.

- Check whether the factory-set power voltage corresponds with the local power voltage. If this is not the case, set the voltage selector ㉒ to the local power voltage.
- Insert the power cord into jack ㉑ and the power plug into the wall outlet. Now the AC power supply is switched on.
- **AC Adaptor:** This unit is equipped with a standard AC power cord for 120 V AC, 60 Hz. A proper adaptor must be connected to this unit with different types of AC outlet, or contact your local qualified service personnel.
- To disconnect the set from the power completely, withdraw the power plug from the wall outlet.

ANTENNAS

FM: Fully extend the telescopic antenna ③ for FM reception (see arrows in Fig. 5) and aim the antenna for optimal reception by inclining and turning it.

SW: For short wave reception, fully extend the antenna and leave it in vertical position.

AM and LW: For AM and LW reception you can choose between a built-in ferrite antenna (ferroceptor) and the telescopic antenna ③.
By switching over during AM or LW reception from ferroceptor to telescopic antenna (or vice versa) using selector ⑥, you can try out which antenna offers the best reception results. The reception results may differ in case of use inside or outside your house and according to the type of interference.
If the ferroceptor antenna is used for AM or LW, this antenna can be directed by turning the receiver.
When using the telescopic antenna for AM or LW, extend it fully and leave it in the vertical position.

Antenna connections

On the connection panel at the right-hand side of the receiver the jacks for AM and FM external antennas and for a ground cord are situated.
It is possible to connect an AM or FM external antenna and, if necessary, a ground cord to them if the reception results with the built-in antennas are unsatisfactory (for instance in houses or appartments in which much reinforced concrete has been used).
For further information see the separate booklet 'WORLD RECEIVER'.

Connection to an amplifier

The LINE OUT jack ⑱ can be connected to the AUX or TAPE input of an amplifier. In that case the speaker of the radio continues to work. If you wish to listen only via the connected amplifier, you can set the volume control ⑬ to MIN.

Connection of a headphone

You can connect a headphone with a ∅ 6.3 mm jack plug and an impedance of 8-600 Ohm or an electret headphone to jack ⑲. In that case the built-in speaker is switched off.
The volume is adjusted with control ⑬ and the tone with control ⑫.

OPERATION

- Switch on the receiver with POWER on/off switch ①. Now the receiver tunes to 87.5 MHz in the FM band or - if the batteries have already been inserted before - to the last frequency received.
- Adjust the volume with VOLUME control ⑬.
- Adjust the tone with TONE control ⑫.

Tuning

There are two ways of tuning:

1. If the frequency of the transmitter ***is known beforehand:*** by keying in the desired frequency on the frequency touch panel ⑩. The desired frequency appears on the display ④.
2. If the frequency of the transmitter ***is not known beforehand:*** by tuning with tuning knob ⑭ (if necessary preceded by a preselection of the band via selection panel ⑯).

Via frequency touch panel ⑩ each desired frequency can be selected directly

Example: the desired transmitter transmits at 5955 kHz (5.955 MHz).

- Successively press the digits 5 - 9 - 5 - 5 and then EXECUTE. Now the desired frequency appears on the display ④: 5955 kHz with the corresponding band (49 m); the transmitter becomes audible if it is in the air and can be received locally.

You can also key in 5 - . - 9 - 5 - 5 followed by EXECUTE.

You will receive the same transmitter but this time 5.955 MHz appears on the display.

Remark: If you key in an incomplete frequency or a frequency which is outside the range of the receiver, - - - - appears on the display ④.

Important: When keying in a frequency in the FM range, you should always give the frequency in MegaHertz, i.e. with a dot. However, the dot will not be visible until EXECUTE has been pressed.

Example:

For 98.7 MHz you press successively 9 - 8 - . - 7 - EXECUTE.

On the display ④ appears 98.7 MHz and the transmitter becomes audible.

Tuning with tuning knob ⑭

If you want to tune with tuning knob ⑭, you can first select the desired band using one of the keys ⑯ and then tune to the desired frequency with tuning knob ⑭.

However it is also possible to pass with the use of only knob ⑭ all bands with the exception of the FM band without first selecting a specific band.

The frequency appears on display ④. The band is also always indicated: FM, or LW, MW and SW. The SW-indication changes to a 'meter' indication as soon as you get within the 'boundaries' of the broadcast SW ranges.

Example:

The 49 meter band ranges from 5950 kHz through 6200 kHz. When tuning with tuning knob ⑭ from 5949 kHz to 5950 kHz the indication 'SW' changes to '49 m'.

If you continue to turn until the end of the 49 meter band, the indication changes at 6201 kHz back to 'SW'.

Fast tuning with tuning knob ⑭

With tuning knob ⑭ you can tune in steps of 1 kHz or 100 kHz (at FM in steps of 10 kHz or 1 MHz).

Each 'click' of the knob corresponds with 1 kHz higher or lower on the display. If, however, you give a quick turn to knob ⑭, the frequency received jumps 100 kHz higher or lower. Each turn of knob ⑭ causes the frequency to jump 100 kHz higher or lower.

For the FM band tuning knob ⑭ works in a similar way but here each 'click' corresponds with 10 kHz higher or lower on the display. In case of a quick turn to knob ⑭ the frequency in the FM band jumps by 1 MHz.

Touch panel for band selection ⑯

With the keys of touch panel ⑯ you can choose the lowest frequency in a band and then continue tuning with tuning knob ⑭.

The FM, LW and AM band can be chosen separately.

The SW bands are chosen via a shift system. After the first press on SW, 120 m appears on the display. Next (after a new press on SW): 90 m, 75 m, 60 m, 49 m, 41 m, 31 m, 25 m, 21 m, 19 m, 16 m, 13 m and 11 m.

At the end of these operating instructions the boundaries of the SW bands are given.

Storing presets

With the keys on touch panel ⑮ nine presets can be stored in the memory of the receiver (and may also be changed at any time).

- Tune to the transmitter which you wish to store.
- Press STORE, see touch panel ⑮.
- Now ATT appears for approx. 5 seconds on display ④.
- ***Within these 5 seconds*** you successively press (for instance) keys A and 1 of touch panel ⑮. Now the preset has been stored in the memory under number A 1. Next you tune to another transmitter; then you press STORE once again followed by A

LIMITED WARRANTY

MAGNAVOX Portable Products

*90-Day Carry-In Exchange

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

What N.A.P. Will Do
For the first Ninety (90) Days from the date of purchase, your Magnavox product will be replaced with a new , renewed or comparable product (whichever is deemed necessary by Magnavox) if it becomes defective or inoperative. This is done without charge to you. Replacement products are warranted for the balance of the warranty period.

Who is Protected?...Where?
This warranty is extended to the original retail purchaser for products purchased and used in the U.S.A. (excluding Puerto Rico and the Virgin Islands).

What the Purchaser Must Do
Before you call for service, check your operating instruction booklet. A slight adjustment of the customer controls discussed in your instruction booklet may save you a service call.

If you require service during the warranty period, you must take your Magnavox product to the dealer from whom it was purchased, or carefully pack the product and ship it by prepaid transporatation with proof of the purchase date to the nearest Magnavox Small Products Service Center. *

ALL IMPLIED WARRANTIES INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Product Services Operation
N.A.P. Consumer Electronics Corp.
P.O. Box 555
Jefferson City, TN 37760
(615) 475-3801

How To Get Service On Your Magnavox Product After The 90 Day Warranty Expires

Out-of-warranty service can be obtained at a nominal cost for replacement and handling under the following arrangements:

1. Contact the N.A.P. Product Services Operation Office listed above to obtain the cost of out-of-warranty repair for your model product.
2. Pack your Magnavox product securely in a suitable container for shipment.
3. Mail the product to the nearest Magnavox Small Products Service Center* listed below.
4. When your product is received, it will be replaced by a renewed product which meets Magnavox's high quality standards and shipped back to you by pre-paid transportation.

***Magnavox Small Products Service Centers**

SOUTHERN CENTER

N.A.P. Consumer Electronics Corp.
907 Snapp Ferry Road, Plant 2
Service Parts Warehouse 7
Greeneville, TN 37743
(615) 638-2251

MIDWEST CENTER

N.A.P. Consumer Electronics Corp.
500 E. Touhy Ave., Unit "B"
Des Plaines, IL 60018
(312) 827-9400

EASTERN CENTER

N.A.P. Consumer Electronics Corp.
180 Manor Road, Dept. 103
East Rutherford, NJ 07073
(201) 935-1212

WESTERN CENTER

N.A.P. Consumer Electronics Corp.
1646 S. Anderson
Compton, CA 90220
(213) 637-2543

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and then 2 of touch panel ⑮. This transmitter has now been stored under number A 2.
In the same way you can store in total nine presets in the memory:
A 1 - A 2 - A 3 - B 1 - B 2 - B 3 - C 1 - C 2 - C 3
Next you can tune to the desired preset by keying in the related letter/figure combination.
In case of switching over from one preset to the other, in a number of cases it will be enough to press one single key:
if, for instance, you wish to switch from A 1 to B 1, you only need to press key B. Later, if you want to change from B 1 to B 3, a press on key 3 of touch panel ⑮ will be enough.
Note: You can check whether there still is a letter/figure combination 'vacant' to store a preset: then - - - - appears on the display. If all nine combinations have been used, it is still possible to store a new preset. Then the old transmitter is erased from the memory.

SINGLE-SIDE BAND MODULATION (SSB)

In many amateur transmitters but also in transmitters which are used for communication purposes and weather forecasts, etc. so-called single side band modulation is used.
These single side band or SSB transmitters can be ***heard*** with a normal receiver but not be ***understood.***
For an understandable reception of SSB transmitters an auxiliary oscillator (BFO or 'Beat Frequency Oscillator') is required.
For more technical details see the booklet 'WORLD RECEIVER'.

Tuning to SSB transmitters

- Increase the volume with VOLUME control ⑬.
- Turn AM GAIN control ⑪ to MAX.
- Set BFO control ⑨ to the mid position.
- Accurately tune to the frequency of the SSB transmitter.

If the exact frequency is not known beforehand, tune to maximum volume.

- Switch on the auxiliary oscillator with BFO switch ⑧. Simultaneously the automatic gain control is switched off.
- Vary the BFO frequency with BFO control ⑨ until the transmitter is received understandably.
- You can try to improve the understandability with AM GAIN control ⑪.

Distance/local selector ⑦

By pressing the distance/local switch ⑦ you can reduce the sensitivity of the receiver. In this 'local' mode you will receive only the local and/or very strong transmitters.

Important

- Do not expose the set or batteries to rain or moisture, or, for any great length of time, to excessive heat from heating equipment or direct sunshine, e.g. in cars parked in the sun.

BANDS

Display indication for the different frequencies:
FM: 87.5 - 108 MHz
LW: 146 - 521 kHz
AM: 522 - 1,622 kHz
SW: 1,623 - 29,999 kHz

The broadcast SW bands are subdivided as follows:

120 meter	from	2,300 kHz to	2,498 kHz
90 meter	from	3,200 kHz to	3,400 kHz
75 meter	from	3,950 kHz to	4,000 kHz
60 meter	from	4,750 kHz to	5,060 kHz
49 meter	from	5,950 kHz to	6,200 kHz
41 meter	from	7,100 kHz to	7,300 kHz
31 meter	from	9,500 kHz to	9,900 kHz
25 meter	from	11,650 kHz to	12,050 kHz
21 meter	from	13,600 kHz to	13,800 kHz
19 meter	from	15,100 kHz to	15,600 kHz
16 meter	from	17,550 kHz to	17,900 kHz
13 meter	from	21,450 kHz to	21,850 kHz
11 meter	from	25,670 kHz to	26,100 kHz

In case of interjacent frequencies the display indicates SW.

This set complies with the FCC rules, Part 15.